

Risks associated with delayed replacement of IBM ASF

1. Introduction

IBM's ASF mainframe software was first launched in the 1980's and has been the core document creation and output (typically print) management engine used by many large organisations for communication with millions of customers. IBM announced withdrawal of marketing in 2015 and it is now **out of support** from [30th September 2017](#). Software support may be extended on premium terms, but the fundamental risks and inefficiencies of running ASF compared to a modern alternative remains.

Although ASF is a relatively stable product there are many risks that should be considered when running obsolete software (alongside the operational and financial inefficiencies of software initially created 30 years ago). Customers now have several choices:

(a) **Accept the risk and delay any replacement:**

In the current fast changing workplace (particularly for organisations undertaking M&A, re-structuring, re-branding, or combinations of these) with multiple impacts from customers, legislation and regulators, doing nothing with ASF installations might be deemed simple, but it is far from the safe option for many of the reasons that will be discussed in Section 2.

(b) **Attempt to move to a different platform:**

Moving to a different platform typically involves recreating the solution by attempting to replace both software and hardware simultaneously. There are many unproven approaches that are attempted across the market, typically undertaken without guarantee of success to the client paying for it. However, there are often significant and "unknown" issues that arise. Section 3 discusses the experience of many clients across Europe that have attempted this move from ASF. Clients should assess the risks and benefits of any unproven approach very carefully and include references and guarantees in their contractual negotiations.

(c) **A straightforward migration:**

Icon's DOPIX is [IBM's only recommended successor to ASF](#) and is the only binary compatible software available on the market. This compatibility means that DOPIX utilises the existing business logic, including the complex and valuable IP that has been built up over many years. ASF can be switched off when replaced by DOPIX, with almost no testing required (versus extensive testing needed for other approaches).

DOPIX thus enables a fast and low risk migration to a richer modern platform functionality, whether still on, or independent of, the mainframe. It also frees a key dependence on migration away from mainframes, whilst retaining flexibility. Uniquely it is a proven solution coupled to an implementation methodology with guarantees of time, cost and quality.

This document explores the risks of doing nothing alongside a quantified risk profile illustrating (as a discussion starter to be customised for each organisation's circumstances) cost range, risk probability and potential overall exposure for corporate clients.

2. Do Nothing: Risk and Cost Types

There are many types of risk and cost associated with a “do nothing” or “deferred decision” approach in environments using ASF for core customer communications. This summarises some key points to consider:

Catastrophic Failure

This is the worst scenario, rare but generally it’s not unheard of*. ASF may also stop working with any change to its overall ecosystem of operating system, hardware, and associated software. This has a low probability of happening, but it becomes more likely as time goes on. It is especially likely to occur following an upgrade to operating systems, databases or other dependent components.

As such, any platform modernisation activity is potentially a trigger for an unexpected failure. There is no chance of a fix (without a DOPiX upgrade), other than rolling back, but this is only a temporary solution. A replacement solution may need to be implemented quickly at a far higher cost and further risk, than if performed in a planned way.

However, even the fastest possible replacement solution (DOPiX) could take 3-9 months, depending on the extent of other changes contemplated. Other solutions will take a lot longer, often 3-5 years actual against a plan of 2 years, with a higher probability of an unsuccessful project and ASF still retained. What would be the cumulative business impact of both the failures and delays to you?

** RBS were fined £56 million in 2014 over an ‘unacceptable’ computer failure. Many organisations, including the NHS and numerous Financial organisations, have suffered in 2017 from total system unavailability due to ransomware attacks mostly exacerbated by running obsolete legacy software.*

Incorrect Data

Analysis has already shown that replacing the functionality of ASF-based systems with a new solution (rather than a transition to DOPiX) is complex and high risk. All the business logic developed over many (e.g. 25+) years will need to be fully understood and manually recreated with the potential to introduce errors.

Using another system to replace some templates, without full and lengthy testing, could result in incorrect information being communicated to customers, introducing a risk to business integrity and reputation as well as potentially making you liable to an embarrassing and/or costly fine.

This risk can be eliminated if a “plug compatible” solution is used to replace ASF.

Losing Key Staff and Expertise

The capacity to make changes to the ASF-based system is typically limited to a small support team. This team is often aging and approaching retirement. Their detailed knowledge of any of the close integrations of decades of business logic and ASF is mostly carried in such people’s heads and generally irreplaceable. Training new staff to the same level would take many years, even if staff would be willing to train for such an obsolete product. Even outsourcers are reluctant for their staff to do this as the investment is large and multi-year against a product with a diminishing user base.

When key staff leave, this knowledge and their skills are usually lost. There is usually little documentation and problems only surface when something, such as a template or business logic, needs to be changed. Things then need to be done quickly, with pressure to shortcut best practices or appropriate testing, increasing the possibility of a catastrophic error.

The later the replacement solution for ASF is implemented, the greater the risk of expertise being lost and capacity to perform changes reduced.

Excessive Operational Costs

Loss of customers is a very real risk if businesses are unable to deliver content in the customer's chosen format. Customer dissatisfaction is now more prevalent than ever, as is dwindling loyalty and trust, leading to switching of accounts. ASF prevents modernisation, locking in legacy formats, media and process cost. Modern systems enable electronic communications on an omni-channel basis.

Without this, there are both higher operational costs (such as the ability to reduce print and postage costs by delivering customer communications electronically, higher IT OpEx and LOB OpEx, etc.) and missed opportunity costs (such as improving customer format choice and self-service over multiple channels - without expensive additional investments or creating more siloed systems).

Capacity to Perform Changes

There are many factors in the foreseeable future that will potentially generate multiple requests to change existing templates and create new ones. The existing ASF system is inefficient and costly to maintain, with changes to templates taking several weeks to months to complete, rather than hours. There is also a high probability that the required changes in ASF will not be completed in time.

Migrating from ASF sooner rather than later will reduce the maintenance effort and allow changes to existing (and creation of new) templates to be done at a fraction of the current effort and cost.

The known factors that will generate many templates changes are:

FCA Regulatory changes

Several UK financial organisations are currently under pressure from the FCA to change the wording in their customer communications, with fines likely to ensue for failing to meet deadlines.

This is not only about language that is seen to be outdated and stuffy. The FCA is introducing sweeping changes, such as having to add graphs, illustrations and/or charts to regulated customer communications to make them easier to understand. The risk here is not being able to comply within the required timescales. IBM ceased marketing ASF in 2015 and put customers on notice 2 years ago that all ASF support was being withdrawn on 30 September 2017. Thus, by October 2017 there is little excuse that there was insufficient time to make the necessary changes.

Brexit

Brexit will certainly have far reaching consequences, including regulatory changes that need to be implemented and new information communicated to customers. This means that changes to ASF templates and associated business logic, and therefore workload, could increase significantly in the near to medium term. Without flexible template administration and intuitive usability coupled with strong workflow this will cost more, take longer and increase the risk of errors and delays.

Rebranding

As with Brexit, organisations undertaking major re-branding will suffer similar issues of increased cost, timescales and risk primarily because ASF is 30 years old.

The higher costs and risks are likely to be proportionate to the amount of change involved. Remaining on ASF means that certain changes are impossible or will take a large amount of effort (and cost) to implement. Even in a low change situation, the impact may be customer losses.

3. Unproven Approaches – The European Experience

There are many examples across Europe of supply-side organisations attempting to exit ASF. These can generally be characterised in the following groups of experiences:

Group 1: Only a straightforward ASF installation with no integration of business logic:

Where these are in smaller organisations, it has been possible over several years to migrate off ASF. However, the cost and timescales are always more than originally anticipated and certainly more than the DOPIX option. Some organisations are still struggling 3-5 years later.

Group 2: Larger organisations with limited amounts of business logic integration:

These have had more challenges. It has been seen that simple templates have been replaced in a reasonably straightforward manner. However, medium complexity templates have taken longer and often the complex templates cannot be replaced. This has led to situations where ASF remains installed but in a silo running alongside the systems that were designed to replace them.

Group 3: Large Enterprises with tight integration of business logic:

It can regularly be seen that organisations waste a lot of time and money on vendor and/or outsourcer promises, based more on hope than proven experience. These often result in admission of failure after several years and leads eventually to a discussion with icon to remedy the situation.

Group 4: icon Customers, formerly ASF installations:

The reason that DOPIX became an IBM listed product and the only recommended replacement for ASF was that IBM understood that icon has the most experience of any vendor with successful ASF migrations. A client list of successfully migrated organisations is available – and not one has been uninstalled following migration. Whether the client is small or large, has tightly or loosely integrated business logic, or has limited or no documentation, icon consultants and the DOPIX platform have a proven track record and methodology. Therefore icon is the only organisation that can guarantee a successful migration from ASF.

Group 5: Procrastinators:

The organisation convinces itself that do nothing is a ‘safe bet’ that will not be scrutinised. That is a gamble and one that is palatable only until there is a discontinuity through software failure or external disrupters. Then there is a distress situation, that can only be resolved, at best, by throwing money at urgent resolution.

ASF has consistently been one of the key blockers to moving away from IBM mainframes as it is intimately connected to core applications. This may be seen to be good for IBM as it “preserves a *cash cow*” but is both limiting to users and limiting to IBM’s more strategic customer focused improvement agenda’s. As DOPIX can be run in a mainframe or non-mainframe environment (or both), it is really a key component for organisations wishing to ‘break the mainframe shackles’.

Once this is understood organisations usually either integrate DOPIX into (a) their mainframe exit strategy sooner rather than later, or (b) their plans to move the operating system to z/Linux.

4. Risk Profile Example

A sample profile is shown below. The exact profile will of course be different and individual for every organisation.

Additional risks above and beyond those discussed above may also be present. The table below summarises some points of quantification that warrant serious consideration by the Chief Risk Officer and their team:

Considerations are all over 5 years.

Issue	Risk	Cost	Probability	Weighted Cost
Catastrophic Failure	Loss of CCM system (for extended period)	£10m - £30m	10%	£1.0m - £3.0m
Loss of Key Staff	Knowledge and skills dilution	£0.4m - £1.8m	75%	£0.3m - £1.4m
FCA Regulatory Risk	Inability to make changes in required timescales	£10m - £30m	20%	£2.0m - £6.0m
Excessive Operational Costs	High Internal Operational Costs	(£2m-£6m pa) £10m-£30m	100%	£10.0m - £30.0m
	Minimal online Self-Service & Dissatisfied customers leaving	£50m - £80m	20%	£10.0m - £16.0m
Incorrect Data	Catastrophic errors	£10m - £40m	15%	£1.5m - £6.0m
Brexit	Change workload	£0.5m - £1.5m	90%	£0.4m - £1.3m
Rebranding	Change workload	£1m - £2.5m	80%	£0.8m - £2.0m

5 Year Total Exposure: £ 92m - £216m. Weighted Cost: £26.8m – £65.7m

Summary

Every organisation currently running IBM's ASF should carefully and urgently assess their options. Specialists at icon have more experience of successful ASF change than any other. A free risk assessment to identify, assess and quantify risks and their mitigations is available from icon.

Doing nothing is not the safe, or correct, answer. It is likely that a move to DOPIX, if not taken now, will be reconsidered in the next three years. This is an opportunity to realise savings, business benefits and reduce operational risk early – before one or more of the major risks above materialises at a cost often far higher than the entire DOPIX project.

If further discussion of these issues is helpful, contact icon at info@icon-uk.net.